

ABSTRACT

1 A vacuum pumping system comprises a first gas supply for supplying a first gas,  
2 such as xenon, to a vacuum chamber. A pump receives the gas output from the  
3 chamber. A second gas supply supplies a purge gas, such as nitrogen or helium,  
4 for pumping with the first gas. A gas separator receives the pumped gases  
5 exhausted by the pump, and recovers the first gas and the purge gas from the  
6 stream. The recovered first gas is recirculated through the vacuum chamber, and  
7 the recovered second gas is recirculated through at least the pump.